PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:
see form PCT/ISA/220

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing *(day/month/year)* see from PCT/ISA/210 (page 2)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/DE2004/001443	7/6/2004	7/14/2003

International Patent Classification (IPC) or both national classification and IPC
G01F1/68

Applicant
ROBERT BOSCH GMBH

1. This opinion contains indications relating to the following items:

- [x] Box No. I Basis of the opinion
- [ ] Box No. II Priority
- [ ] Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- [ ] Box No. IV Lack of unity of invention
- [x] Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- [ ] Box No. VI Certain documents cited
- [ ] Box No. VII Certain defects in the international application
- [x] Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/	Authorized officer
European Patent Office Munich	Papantoniou, .E
Facsimile No.	Telephone No.

Form PCT/ISA/237 (cover sheet) (January 2004)

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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/DE2004/001443

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

   ☐ This opinion has been established on the basis of a translation from the original language into the following language _____ , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

   a. type of material

   ☐ a sequence listing

   ☐ table(s) related to the sequence listing

   b. format of material

   ☐ in written format

   ☐ in computer readable form

   c. time of filing/furnishing

   ☐ contained in the international application as filed.

   ☐ filed together with the international application in computer readable form.

   ☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

WRITTEN OPINION OF THE
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Box No. V **Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims		YES
	Claims	1, 3, 4, 10, 12	NO
Inventive step (IS)	Claims		YES
	Claims	1 -17	NO
Industrial applicability (IA)	Claims	1 - 17	YES
	Claims		NO

2. Citations and explanations:

see supplemenatry page

WRITTEN OPINION OF THE
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Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see supplementary page

Regarding Point V:

Reasoned statement with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement

1. Reference is made to the following documents:
   D1: US-A-4,457,169
   D2: US-A-5,485,746
   D3: WO-A-01 18494
   D4: WO-A-01 18499

2. The present application does not meet the requirements of Article 33 (1) PCT, because the object of Claim 1 is not novel as defined by Article 33 (2) PCT.

3. Document D1 (the references in parentheses refer to this document) discloses a device for determining at least one parameter ("flow rate meter", see title of D1) of a medium flowing in a line (1, Figure 2, D1) in a main flow direction (2, Figure 2, D1), including a line component (1, Figure 2, D1) that forms a line through-channel and a sensor device (17, Figure 2, D1) having a bypass part (19, Figure 2, D1) which is situated in the line component (1, Figure 2, D1) so that a partial stream of the medium flowing in the line component (1, Figure 2, D1) passes into an inlet area (25, Figure 2, D1) of a channel structure (18, Figure 2, D1) provided in the bypass part (19, Figure 2, D1), the inlet area having a removal opening (23, Figure 2, D1) which opens into the line through-channel at at least one of two sidewalls of the bypass part (19, Figure 2, D1) that extend parallel

to the main flow direction. Furthermore, D1 discloses that in the line component (1, Figure 2, D1) a flow diversion element (20, Figure 2, D1) is provided upstream from the bypass part (19, Figure 2, D1) with respect to the main flow direction (2, Figure 2, D1), which has at least one diversion surface (22, Figure 2, D1) facing the main flow direction, which, starting from an apex line located at a distance from the bypass part, curves evenly on both sides toward the two sidewalls so that the planes of the diversion surface (22, Figure 2, D1) which face away from the apex line are aligned with the sidewalls (19, Figure 2, D1).

Thus the object of Claim 1 is not novel (Article 33 (2) PCT) with respect to D1.

4. Document D2 discloses a device for determining at least one parameter ("flow rate meter", see title of D2) of a medium flowing in a line (10, Figure 1, D2) in a main flow direction (A, Figure 1, D2), including a line component (10, Figure 1, D2) which forms a line through-channel and a sensor device (21, 22, Figure 1, D2) having a bypass part (18, Figure 1, D2) which is situated in the line component (10, Figure 1, D2) so that a partial flow of the medium flowing in the line component passes into an inlet area (183, Figure 1, D2) of a channel structure provided in the bypass part, the inlet area having a removal opening which opens into the line through-channel at at least one of two sidewalls (14, Figure 1, D2) of the bypass part (18, Figure 1, D2) which extend parallel to the main flow direction. Furthermore, D2 discloses that a flow diversion element (12, Figures 1 and 2, D2) is provided in the line component (10, Figure 1, D2) upstream from the bypass part (18, Figure 1, D2) with

respect to the main flow direction, which has at least one diversion surface facing the main flow direction, which, starting from an apex line located at a distance from the bypass part, curves evenly on both sides toward the two sidewalls (14, Figure 1, D2) so that the planes of the diversion surface which face away from the apex line are aligned with the sidewalls (see Figures 1 and 2, having ribs 151, 153 that are parallel to wall 14 of bypass part 18).

Thus the object of Claim 1 is not novel (Article 33 (2) PCT) with regard to D2.

5. Dependent Claims 2 - 17 do not include any features which, in combination with the features set forth in Claim 1, meet the PCT requirements with regard to novelty and inventive step (see documents D3 and D4 and the corresponding points in the text as indicated in the Search Report).

Regarding Point VIII

Certain observations on the international application

The Application does not meet the requirements of Article 6 PCT, because Claim 1 is unclear.

In particular, it is not clear what is meant by the following:
- "removal" in the phrase "removal opening (33)";
- "apex line (25)" of the diversion surface (20), because it appears that only the apex line of a parabolic cylinder surface is involved, and this is only comprehensible if one refers to Figure 4.